IN THE CLAIMS

1-61 (canceled)

62. (new) A process comprising:

applying an aqueous, acidic solution comprising dissolved contents to a metallic surface, said metallic surface comprising at least 5% by weight of at least one of aluminum or an aluminum alloy, wherein the dissolved contents in the phosphating solution comprise:

having a combined sodium and potassium content in the range of 0.3 to 1.8 g/L as sodium, the potassium content being converted to sodium on a molar basis;

zinc in a concentration range of 0.2 to 4 g/L;

phosphate in a concentration range of 4 to 65 g/L, calculated as PO_4;

free fluoride in a concentration range of 0.03 to 0.5 g/L;

total fluoride in the concentration range of 0.1 to 5 g/L;

wherein a zinc-containing phosphate film is deposited on the metallic surfaces and has a coating weight in the range of 0.5 to 10 g/m^2, whereby the value of the free acid KCl is kept in the range of 1.6 to 2.8 points, wherein the process is conducted without a precipitation tank, whereby precipitation products from an Al-F complex are scarcely deposited on the surfaces of the sheets so that there is no significant deterioration of the corrosion resistance by the precipitation products, wherein a total content of alkali metal ions, including the combined sodium and potassium content, ranges from 0 to 1 g/L.

63. (new) The process according to claim 62, wherein the content of dissolved aluminum in the phosphating solution are in the concentration range of 0.002 to 1 g/L.

64. (new) The process according to claim 62, wherein the phosphating solution comprises at least one of a silicon complex fluoride and a boron complex fluoride, wherein the

total content of the boron and the silicon complex fluoride in the phosphating solution is 0.01 to 8 g/L.

65. (new) The process according to claim 62, wherein a content of complex bound fluoride in the phosphating solution is from 0.01 to 8 g/L, calculated on a molar basis as SiF_6.

66. (new)) The process according to claim 62, wherein the contents dissolved in the phosphating solution are as follows:

sodium: in the concentration range of 0.050 to 2 g/L,

potassium: virtually none or in the concentration range of 0.030 to 1.5 g/L,

sodium and potassium: in the concentration range of 0.025 to 1.5 g/L as sodium, potassium being converted to sodium on a molar basis,

silicon complex fluoride: in the concentration range of 0.01 to 4 g/L and/or

boron complex fluoride: in the concentration range of 0.01 to 4 g/L, calculated as SiF_6 and BF_4 respectively.

67. (previously presented)The process according to claim 62, wherein at least one of the contents in the phosphating solution are present as follows:

sodium: virtually none or in the concentration range of 0.060 to 1.8 g/L;

potassium: in the concentration range of 0.035 to 1.4 g/L;

potassium: in the concentration range of 0.035 to 1.4 g/L;

sodium and potassium: in the concentration range of 0.05 to 2 g/L as sodium, potassium being converted to sodium on a molar basis;

silicon complex fluoride: in the concentration range of 0.02 to 1 g/L or

boron complex fluoride: in the concentration range of 0.02 to 3 g/L, calculated as SiF_6 and BF_4 respectively.

68. (new) The process according to claim 62, wherein the dissolved contents comprise at least one of nickel: virtually none or in the range of 0.001 to 3 g/L or manganese: virtually none or in the range of 0.002 to 5 g/L.

69. (new) The process according to claim 62, wherein the dissolved contents comprise at least one of

dissolved iron^{2+} ions: virtually none or in the concentration range of 0.005 to 3 g/L or

complexed iron^{3+} ions: virtually none or in the concentration range of 0.005 to 1 g/L.

70. (new) The process according to claim 62, wherein the dissolved contents comprises at lest one of:

silver: virtually none or in the concentration range of 0.001 to 0.080 g/L or

copper: virtually none or in the concentration range of 0.001 to 0.050 g/L.

71. (new) The process according to claim 62, wherein the dissolved contents comprises at least one of:

titanium: virtually none or in the concentration range of 0.001 to 0.200 g/L or

zirconium: virtually none or in the concentration range of 0.001 to 0.200 g/L.

72. (new) The process according to claim 62, wherein the dissolved contents comprise at least one of:

ammonium: virtually none or in the concentration range of 0.01 to 50 g/L or

nitrate: virtually none or in the concentration range of 0.01 to 30 g/L.

73. (new) The process according to claim 62, wherein the dissolved contents comprise at least one of:

sulfate: virtually none or in the concentration range of 0.005 to 5 g/L or

chloride: virtually none or in the concentration range of 0.020 to 0.5 g/L.

74. (new) The process according to claim 62, wherein the phosphating solution comprises at least one accelerator selected from the group consisting of a compounds or ions based on

nitrogen-containing compounds in the concentration range of 0.01 to 8 g/L;

chlorate in the concentration range of 0.01 to 6 g/L;

hydroxylamine in the concentration range of 0.01 to 3 g/L; and

peroxide, including water-soluble organic peroxide, in the concentration range of 0.001 to 0.200 g/L, calculated as H_2O_2.

75. (new) The process according to claim 62, wherein the content of magnesium in the phosphating solution is not more than 1 g/L.

76. (new) The process according to claim 75, wherein the contents of the magnesium is not more than 0.15 g/L.

77. (new) The process according to claim 62, wherein the pH is in the range of 2 to 4.

78. (new) The process according to claim 62, wherein the content of free acid determined with KCl is in the range of 0.3 to 6 points, the content of dilute total acid is in the range of 8 to 70 points or the content of total acid according to Fischer is in the range of 4 to 50 points.

79. (new) The process according to claim 62, wherein the phosphate coating is applied at a temperature of from 20 to 70°C.

80. (new) The process of claim 62, wherein the surface is a body part for an automobile or an aircraft, a sheet, a wire mesh, or a small plant.

81. (new) A process comprising:

applying an aqueous, acidic solution comprising dissolved contents to a metallic surface in the absence of a precipitated tank, said metallic surface comprising at least 5% by weight of at least one of aluminum or an aluminum alloy, wherein the dissolved contents in the phosphating solution comprise:

virtually no sodium or a concentration of sodium in the range of at least 0.04 g/L,

virtually no potassium or a concentration of potassium in the range of at least 0.025 g/L,

wherein the concentrations of sodium and potassium together is in the range of 0.3 to 1.8 g/L as sodium, the potassium content being converted to sodium on a molar basis;

zinc in a concentration range of 0.2 to 4 g/L;

phosphate in a concentration range of 4 to 65 g/L, calculated as PO_4;

free fluoride in a concentration range of 0.03 to 0.5 g/L;

total fluoride in the concentration range of 0.1 to 5 g/L; wherein a zinc-containing phosphate film is deposited on the metallic surfaces and has a coating weight in the range of 0.5 to 10 g/m^2, wherein the range of free fluoride is from 0.1 to 0.25 points, whereby precipitation products from an Al-F complex are scarcely deposited on the surfaces of the sheets so that there is no significant deterioration of the corrosion resistance by the precipitation products, wherein a total content of alkali metal ions, including the combined sodium and potassium content, ranges from 0 to 1 g/L.

82. (new) The process according to claim 81, wherein a content of complex bound fluoride in the phosphating solution is from 0.01 to 8 g/L, calculated on a molar basis as SiF_6.

83. (new) The method of claim 62, wherein the process is a continuous process.

84. (new) The method of claim 81, wherein the process is a continuous process.

85. (new) A process comprising:

applying an aqueous, acidic solution comprising dissolved contents to a metallic surface, said metallic surface comprising at least 5% by weight of at least one of aluminum or an aluminum alloy, wherein the dissolved contents in the phosphating solution consist essentially of:

having a combined sodium and potassium content in the range of 0.3 to 1.8 g/L as sodium, the potassium content being converted to sodium on a molar basis;

zinc in a concentration range of 0.2 to 4 g/L;

phosphate in a concentration range of 4 to 65 g/L, calculated as PO_4;

free fluoride in a concentration range of 0.03 to 0.5 g/L;

total fluoride in the concentration range of 0.1 to 5 g/L;

wherein a zinc-containing phosphate film is deposited on the metallic surfaces and has a coating weight in the range of 0.5 to 10 g/m^2, whereby the value of the free acid KCl is kept in the range of 1.6 to 2.8 points, wherein the process is conducted without a precipitation tank, whereby precipitation products from an Al-F complex are scarcely deposited on the surfaces of the sheets so that there is no significant deterioration of the corrosion resistance by the precipitation products, wherein a total content of alkali metal ions, including the combined sodium and potassium content, ranges from 0 to 1 g/L.